

ARTICLE 20



TOWN OF BOYLSTON COMMUNICATIONS PROJECT

PRESENTED BY:

DETECTIVE SERGEANT CODY THOMASIAN

BOYLSTON POLICE DEPARTMENT



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PROJECT OVERVIEW

PROJECT SCOPE

- REPLACE CURRENT LOW-BAND SYSTEM WITH A MODERN UHF SYSTEM.
- LACK OF MAINTENANCE AND UPGRADES FOR THE CURRENT SYSTEM HAVE CREATED A SEVERE SAFETY RISK FOR THE ENTIRE COMMUNITY.
- THE NEW SYSTEM PROVIDES INTEROPERABILITY BETWEEN ALL TOWN DEPARTMENTS AS WELL AS NEIGHBORING COMMUNITIES.
- THIS PROJECT REPLACES SERVICES PROVIDED FROM WORAD WITH CYBERCOMINC WHO PROVIDES 24/7 SERVICE AS WELL AS A MAINTENANCE PLAN.
- ENHANCES THE SAFETY FOR THE ENTIRE COMMUNITY WITH INCREASED COMMUNICATIONS AND ADDING COMMUNICATIONS WITHIN THE SCHOOLS.



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CURRENT COMMUNICATIONS SYSTEM – LOW BAND

- 30-50 YEARS OLD.
- CAR REPEATER BASED – LIMITS CURRENT COMMUNICATION CAPABILITIES.
- LOW BAND FREQUENCIES ARE EFFECTIVE FOR LONG DISTANCE COMMUNICATIONS IN AREAS THAT ARE WIDE OPEN AND FLAT. FOR RURAL/RESIDENTIAL COMMUNITIES IT'S NOT EFFECTIVE.
- LOW-BAND IS NO LONGER SERVICEABLE (CANNOT PURCHASE NEW EQUIPMENT, ONLY SECOND HAND)
- NO BACK-UP PLAN – WHAT DO WE DO IF THE CURRENT SYSTEM FAILS?
- COMMUNITY, FIRST RESPONDERS, SCHOOLS, BUSINESSES ARE ALL AT RISK.



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NEW COMMUNICATIONS SYSTEM – SIMULCAST UHF

- POLICE & FIRE – 2 CHANNEL, 3 SIMULCAST SITE, 1 RX ONLY SITE
- HIGHWAY & LIGHT DEPARTMENTS – 2 STAND ALONE REPEATERS
- DISPATCH – 2 OPERATOR POSITIONS, 12 CHANNEL CAPABILITY
- FROM MOTOROLA:

Boylston Townwide Communications Upgrade:		
	Dispatch Console: \$	247,900
	Communications System: \$	1,068,900
	Subscriber Radios: \$	489,000
	\$	1,805,800.00

There have been **significant** price increases since this was originally proposed in 2019, additionally, the scope of the work including sites, towers, frequencies, etc has changed since then. These prices assume the system will be ordered between July 1 and September 30, 2022. - Motorola

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NEW FREQUENCIES

- TRANSITIONING FROM LOW-BAND TO UHF
- MODIFICATION OF THE CURRENT FIRE UHF FREQUENCY WHICH ALLOWED US TO ACQUIRE THE NEWLY ISSUED FREQUENCIES
- THIS ALLOWS US TO HAVE A CHANNEL FOR INVOLVED TOWN DEPARTMENTS & A GENERAL COMMUNICATIONS CHANNEL BETWEEN ALL DEPARTMENTS
- PROVIDES THE ABILITY FOR ALL TOWN DEPARTMENTS TO COMMUNICATE WITH EACH OTHER
- PROVIDES THE ABILITY FOR COMMUNICATIONS WITH SURROUNDING CITIES AND TOWNS
- WILL HAVE THE ABILITY FOR COMMUNICATIONS IN LARGE BUILDINGS AND SCHOOLS

Action Performed	Frequency	Loc#	Ant#	Freq ID	Station Class	Units	Paging Rec.	Output Power	ERP
	000472.15000000	1	1	1	FB2		1	50.000	80.000
Add	000472.71250000	1	1	2	FB2		1	50.000	80.000
Add	000472.40000000	1	1	3	FB2		1	50.000	80.000
Add	000471.11250000	1	1	4	FB2		1	50.000	80.000
Add	000475.15000000	1	2	1	FX1		1	50.000	50.000
Add	000475.71250000	1	2	2	FX1		1	50.000	50.000
Add	000475.40000000	1	2	3	FX1		1	50.000	50.000
Add	000474.11250000	1	2	4	FX1		1	50.000	50.000
Mod	000475.15000000	2	1	1	FX1		1	50.000	50.000
Add	000475.71250000	2	1	2	FX1		1	50.000	50.000
Add	000475.40000000	2	1	3	FX1		1	50.000	50.000
Add	000474.11250000	2	1	4	FX1		1	50.000	50.000
Add	000472.15000000	2	2	1	FB2		1	50.000	80.000
Add	000472.71250000	2	2	2	FB2		1	50.000	80.000
Add	000472.40000000	2	2	3	FB2		1	50.000	80.000
Add	000471.11250000	2	2	4	FB2		1	50.000	80.000
Add	000472.15000000	3	1	1	MO		30	50.000	50.000
Add	000475.15000000	3	1	2	MO		30	50.000	50.000
Add	000475.71250000	3	1	3	MO		30	50.000	50.000
Add	000475.40000000	3	1	4	MO		30	50.000	50.000

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NEW FREQUENCY LOCATIONS

- LOCATIONS ARE SPECIFIC TO OUR NEW FREQUENCIES:
- SITE 1 – POLICE STATION: THIS IS AN ESSENTIAL COMPONENT TO THE SYSTEM AS IT IS THE HIGHEST POINT IN TOWN. THIS SITE WILL HAVE A MICROWAVE LINK TO THE STILES ROAD TOWER. THIS LOCATION WILL REMAIN HERE EVEN IF A NEW PUBLIC SAFETY BUILDING IS BUILT.
- SITE 2 – FIRE DEPARTMENT: MAY REMAIN ON SITE OR BE MOVED TO THE NEW FACILITY LOCATION FOR MINIMAL COST
- SITE 4 – TAHANTO HIGH SCHOOL.
- SITE 5 – STILES ROAD WATER TANK: THIS IS ALSO ANOTHER ESSENTIAL COMPONENT AS IT PROVIDES COVERAGE FOR THOSE AREAS IN TOWN NOW WHERE COVERAGE IS MINIMAL.

Public Safety Pool, Conventional - 0009725384 - BOYLSTON, TOWN OF

Locations Summary

[New Search](#) [Refine Search](#) [Return to Results](#) [Printable Page](#) [Reference Copy](#) [Map Application](#)

MAIN		ADMIN		TRANS LOG		SERVICE SPECIFIC		LOCATIONS		FREQUENCIES	
File Number				0009725384				Radio Service		PW - Public Safety Pool, Conventional	
Call Sign				WQJG350				Application Status		G - Granted	
5 Total Locations								Locations Displayed:			
10 Locations per Summary Page								All Fixed Mobile Itinerant Terra Fixed 6.1m			
[TD] - Terminated or Termination Pending											
Action Performed		Location		Transmitter Address / Area of Operation				Latitude, Longitude			
Mod		1 - Fixed		599 MAIN STREET BOYLSTON, MA WORCESTER County				42-20-58.0 N, 071-44-22.2 W			
Mod		2 - Fixed		215 MAIN STREET BOYLSTON, MA WORCESTER County				42-19-42.4 N, 071-45-17.7 W			
		3 - Mobile		16.0 km radius around a fixed location 1							
Add		4 - Fixed		1001 MAIN STREET BOYLSTON, MA WORCESTER County				42-22-20.4 N, 071-43-08.0 W			
Add		5 - Fixed		OFF STILES ROAD BOYLSTON, MA WORCESTER County				42-20-37.1 N, 071-42-22.8 W			
5 Total Locations								Locations Displayed:			
10 Locations per Summary Page								All Fixed Mobile Itinerant Terra Fixed 6.1m			

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CYBERCOMINC.




- CYBERCOM REPLACES WORAD AND PROVIDED 24/7 SERVICE WHEN NEEDED.
- QUOTE (SEE HANDOUT)
- CYBERCOM'S SCOPE FOR THE PROJECT:
 - AS WE SPOKE ABOUT ON THE PHONE, THE FINAL SYSTEM DESIGN IS STILL MAKING ITS WAY THROUGH ENGINEERING AND VETTING ON OUR END. THAT SAID, HERE ARE SOME FIGURES FOR THE MOTOROLA PORTION OF THE PROJECT. THIS WOULD BE IN ADDITION TO THE SERVICES PROVIDED BY THE TOWN OF BOYLSTON AND/OR CYBERCOM, INCLUDING BUT NOT LIMITED TO:
 - CIVIL (SITE WORK)
 - FIBER OPTIC AND/OR MICROWAVE
 - TOWER CONSTRUCTION
 - CONTROL STATION ANTENNAS
 - DISPATCH RENOVATIONS
 - DISPATCH FURNITURE
 - PRIMARY AND BACKUP ELECTRICAL POWER
 - LICENSING & PERMITTING
 - SHELTER OR BUILDING IMPROVEMENTS OR CONSTRUCTION

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CYBERCOMIN. QUOTES



Town of Boylston
Simulcast UHF Radio System
Per Site Cost List

CYBERCOMIN QUOTES






Cyber Communications
65 Nelson Street
Woburn, MA 01801
(978) 441-1510 (978) 447-0843
boylston@cybercomin.com

QUOTE

QUOTE NO: 57002 Dated: 11/11/2022

CUSTOMER NO: 010000

EXPIRATION DATE: April 10, 2022



Boylston FQMG DESCRIPTION

Boylston FQMG	
1 Luster & Mobilization	\$89,500.00
2 Material	\$83,500.00
3 Civil Work	\$108,125.00
4 Fence	\$14,250.00
5 Concrete	\$14,687.00
6 Engineering	\$99,500.00
SUBTOTAL:	\$730,068.00

To: Chief John A. Amunozola
Boylston Police Department
Boylston, MA 01535
508-869-2113

Boylston Water Tank DESCRIPTION

Boylston Water Tank	
1 Luster & Mobilization	\$87,750.00
2 Material	\$108,200.00
3 Shelter	\$42,250.00
4 Fence	\$14,250.00
5 Civil Work	\$178,750.00
6 Concrete	\$7,437.00
7 Generator	\$40,425.00
8 Engineering	\$19,500.00
SUBTOTAL:	\$608,562.00

Tahanto Regional School DESCRIPTION

Tahanto Regional School	
1 Luster & Mobilization	\$14,925.00
2 Material	\$2,485.00
SUBTOTAL:	\$17,410.00

Boylston FQMG DESCRIPTION

Boylston FQMG	
1 Luster & Mobilization	\$5,642.00
2 Material	\$10,554.00
SUBTOTAL:	\$16,196.00

Tahanto Regional School DESCRIPTION

Tahanto Regional School	
1 Luster & Mobilization	\$14,925.00
2 Material	\$2,485.00
SUBTOTAL:	\$17,410.00

TOTAL PROJECT COST:

\$877,160.00

This is a prevailing wage quote.

TOTAL MAIN

\$833,660.00

Subtotal List Price

\$833,660.00

P&B @ Discount Price

Install

14,544.00

Grand Total

\$848,204.00

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BOYLSTON LIGHT DEPARTMENTS SCOPE

- RUNNING FIBER CABLE THROUGHOUT TOWN
- WILL RUN THE APPROPRIATE WIRING AND SET THE REQUIRED TELEPHONE POLES FOR THE STILES ROAD TOWER.
- HAS QUOTES OUT FOR FIBER; WE HAVE DISCUSSED WITH THE TOWN ADMINISTRATOR ABOUT PURCHASING THE FIBER WITH THE MONEY THAT HAS ALREADY BEEN ALLOCATED FOR THIS PROJECT.



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